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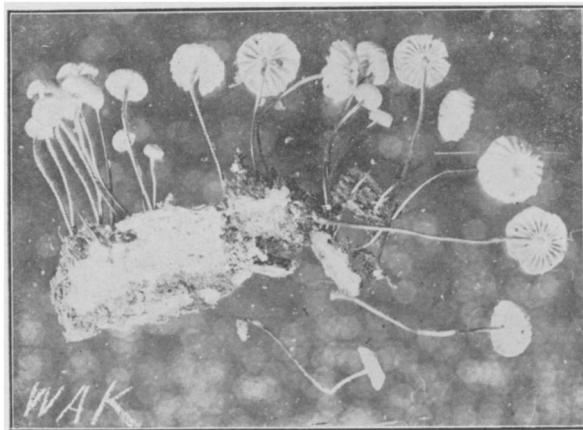
# Mycological Bulletin No. 19

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**ACKNOWLEDGMENT.**—We are indebted to Professor L. F. Henderson for the use of the plate from which Fig. 68 is printed. This with other figures appear in a Bulletin (No. 27) of the Idaho Experiment Station, on the food values of fungi. Those interested in that phase of the subject will find in that Bulletin a summary of our knowledge thereto pertaining. In this connection attention might be called to Professor Atkinson's instructive chapters (in *Mushrooms Edible and Poisonous*) on Selection and Preparation of Mushrooms for the Table; Uses of Mushrooms; Cultivation of Mushrooms; Recipes for Cooking Mushrooms; Chemistry and Toxicology of Mushrooms.

**THE GENUS HY-PHO-LO'-MA.**—This is included in the section of Brown-spored Agarics, the spores being purple brown. The veil when ruptured clings to the margin of the pileus so that rarely or never is there present, on the stem, a ring or annulus. The genus is closely related to *A-gar'-i-cus* and *Stropharia*, but in these genera an annulus is present. Several species of *Hy-pho-lo'-ma* are common and they are edible. Four species are illustrated by half-tones and fully described in Atkinson's *Mushrooms*. McIlvaine



**FIG. 67.—MA-RAS'-MI-US RO'-TU-LA.** This beautiful little *Ma-ras'-mi-us* grows on sticks and leaves and seems to be a common species in our woods. The pileus is one-half inch or less in breadth, and white or whitish in color. The stem or stipe is whitish above. Morgan describes the species as follows: Pileus membranaceous, a little convex, umbilicate, plicate; stipe horny, hollow, shining, glabrous, blackish; lamellae few, broad, distant, joined behind to a free collar, whitish. The cut above was made from a photograph of specimens collected in a woods near Columbus.

includes 14 species in One Thousand American Fungi, one species illustrated by a half-tone plate, and three species shown in a colored plate. We have shown, in the Mycological Bulletin, *Hy-pho-lo'-ma sub-lat-cr-i'-ti-um* on page 25, and *Hy-pho-lo'-ma lac-ry-ma-bun'-dum* on page 57.

RAVENEL'S PHAL-LOID.—On page 71 a figure was given of *Dic-ty-oph'-o ra-ra-re-nel'-i-i*, or in simple language, Ravenel's Phalloid; but space was wanting for an account of the specimen's from which the photograph was made and reference to the interesting characters of this fungus. The fresh "eggs"—such as shown in the left figure above—were sent in quantity by Supt. M. E. Hard, of Chillicothe, and keeping them moist in Sphagnum, the development took place with considerable rapidity, as indicated in the successively developed forms in the plate on page 71. The thick *volva* ruptures at the apex with one or two wide clefts and the central column then elongates rapidly. The cap-shaped or bell-shaped pileus is covered with the spore bearing layer which is called the *gle'-ba*.

In Ravenel's Phalloid the surface of the pileus is merely granular or minutely wrinkled after the gleba melts away, but in other species there is a conspicuous reticulation of ridges and crests, remotely suggestive of the pitted cap of a Morel. The plant presented in longitudinal section shows that the stem is hollow, and this cavity extends quite to the apex, the perforation being conspicuous from above where it is surrounded by a broad light-colored circular lip. The pitted or spongy character of the tissue of the stem can be determined from the figure. It can be seen also that the cap or pileus is attached only near its apex. Beneath the cap is a *veil*—characteristic of this genus.

Botanists include the Phal-loids and their near relatives in the group called *Phal-lin-e'-ae*, of which about 50 species have been described. Most of the forms are found in the Tropics—especially in Australia; about 10 species are reported for North America.

The group contains the two orders, *Clath-ra'-ce-ae* and *Phal-la'-ce-ae*; the latter includes the Phal'-loids or Stink-horns and they are enumerated under 7 different genera. The species most likely to be encountered are members of the genus *Dic-ty-oph'-o-ra* (as shown in Fig. 65, alluded to in the account above) and *Ith-y-phal'-lus*. The unbearably vile-smelling Stink-horn, common in our region, is *Ith-y-phal'-lus im-pu'-di-cus*.

THE IVORY HY-GROPH'-O-RUS.—This species, which we illustrate on the opposite page, is common in pine woods in Idaho according to the interesting account by Professor L. F. Henderson. He says that it occurs in immense quantities—tons upon tons could be collected in the wooded hills of Idaho from September to December—and although coated with a slimy covering, causing it often to slip from the hands like an eel, when cleaned nicely and cooked into a stew makes a delicate dish of oyster flavor—having a decidedly vegetable rather than meat flavor. The plants are from one to four inches wide and three to six inches high. The entire plant is white and the gills are decurrent. The pileus is rather thick, generally flat or convex, though in age it may become tilted upwards; it is always incurved along the edge when young.

Professor Henderson says many other species of this interesting genus are to be found abundantly in fir woods, or in forests of mingled pine and fir, but he has reserved the discussion of these for his future Bulletins. It is supposed that all of the species are edible; they present various shades of colors from white, yellowish-white, yellow, yellowish-red, to dull brownish or dirty olive. He says, besides, that they all agree in the following important generic characters:

The gills are rather distant, of a waxy consistency, broadening towards their attachment to the cap; and the central portion of the gill, called the *tra'-ma*, is but a continuation of the material of the pileus, so that when they are pulled off from the cap they each leave a projecting line of the trama behind them on the cap.

This genus is closely related to *Can-tha-rel'-lus*, but in the latter the gills are blunt and forked.

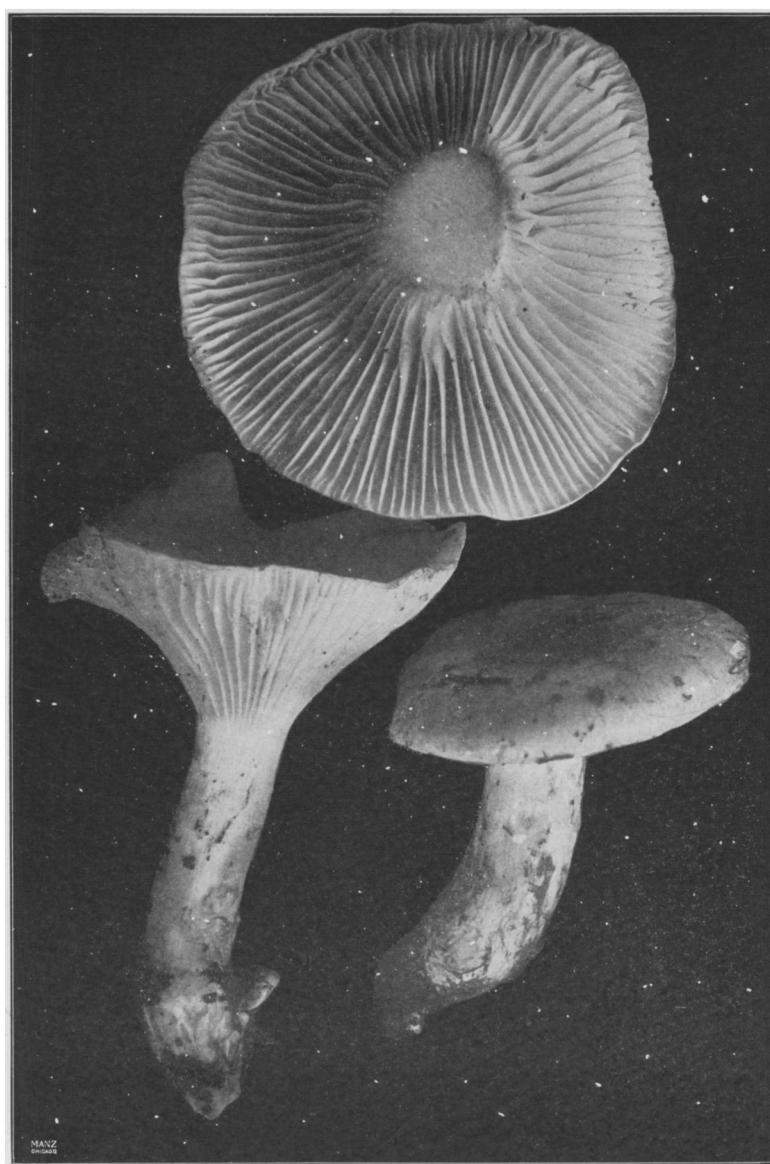


FIG. 68.—*HY-GROPH'-O-RUS E-BUR'-NB-RS.*—IVORY *HY-GROPH'-O-RUS*.—Edible. The half-tone is kindly furnished by Professor Henderson, who first used it to illustrate a Bulletin (No. 27) published by the Idaho Experiment Station, and referred to in the first paragraph of this number of the Mycological Bulletin. The specimens were collected at Moscow, Idaho.

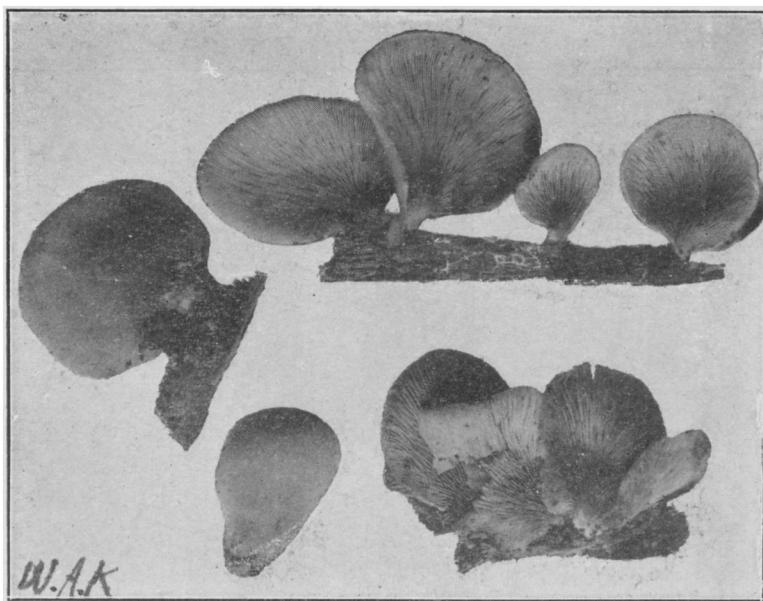


FIG. 69.—PA'-NUS AN-GUS-TA'-TUS.—NARROW PA'-NUS. This is a fleshy-coriaceous fungus more or less spatulate or subelliptical. It is minutely hairy and of a dirty white or yellowish color. The stem is very short or altogether absent. The gills are very numerous and crowded; they are decurrent. The species is common in the woods. Morgan says this and *P. dealbatus* are two fine new species first discovered by Mr. Lea. It was described and named by Berkeley, a pioneer English mycologist. The cut was made from a photograph of specimens collected on a rotten log near Columbus.

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